



January 21, 2009 **RE-ISSUED 06/01/2009 CONTACT CHANGED**

ZOELLER PUMP COMPANY  
WES COMBS  
3649 CANE RUN RD  
LOUISVILLE KY 40211-1961

Re: Description: SEPTIC TANK EFFLUENT PUMP SYSTEM (STEP)  
Manufacturer: ZOELLER PUMP COMPANY  
Product Name: FILTERED STEP SYSTEM  
Model Number(s): FM 1635 SERIES  
P/N 170-126 FILTER AND PUMP CHAMBER WITH THE FOLLOWING PUMPS: 10 GPM pumps P/N 5030-0005, P/N 5030-00006, P/N 5030-0007, P/N 5030-0008 , P/N 5030-0009; 19 GPM pumps P/N 5031-0005, P/N 5031-0006, P/N 5031-0007, P/N 5031-0008; 27 GPM pumps P/N 5032-0005, P/N 5032-0006, P/N 5032-0007, P/N 5032-0008, P/N 5032-0009; and 35 GPM pumps P/N 50033-0005, P/N 50033-0006, P/N 50033-0007, P/N 50033-0008, P/N 50033-0009  
Product File No: 20090012

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. **This approval is valid until the end of MAY 2014.**

This approval is contingent upon compliance with the following stipulation(s):

- Installation and servicing of this product must be in accordance with the manufacturer's instructions. A copy of the manufacturer's installation and servicing instructions must be given to the owner of the system.
- This product must be installed in sewage treatment tanks approved by the Department of Commerce, Division of Safety and Buildings for use with this product.
- When this product receives wastewater from dwellings and is used as a septic tank effluent pump system, it will produce an effluent quality with a maximum monthly average value for BOD5 of greater than 30 mg/L and less than or equal to 220 mg/L, TSS of greater than 30 mg/L or less than or equal to 150 mg/L TSS and F.O.G. of less than 30 mg/L.
- The POWTS treatment tank that this product is installed in must comply with the following calculations.

\_\_\_\_\_ ST (Required septic treatment capacity in gallons)  
\_\_\_\_\_ RC (Reserve capacity in gallons)  
\_\_\_\_\_ TTR (Total tank volume requirement in gallons)  
\_\_\_\_\_ IUI/C (Inches under inlet, calculated)  
\_\_\_\_\_ IUI/M minus IUI/C (must be greater than zero)  
\_\_\_\_\_ MSD (Minimum system vertical dimension between the inlet invert and inside bottom of tank for filter STEP system to work under the inlet)  
\_\_\_\_\_ IUI/M (Inches under inlet, measured, must be equal to or greater than MSD)  
\_\_\_\_\_ TTR/GPI (must be equal to or less than IUI/M)

Where:

ST equals the Estimated Daily Wastewater Flow in accordance with  
Comm 83.43 x 1.5 x 2.088

RC equals the Estimated Daily Wastewater Flow in accordance with Comm 83.43

TTR equals the sum of ST + RC + SDV + DBV + A

SDV equals the single dose volume in gallons

DBV equals the drain back volume in gallons

MSD equals the sum of [(RC + SDV + A) divided by GPI] + 32 inches

A equals the volume between the alarm-on and alarm-off levels in the treatment tank,  
in gallons = vertical distance between alarm-on level and alarm-off level x GPI)

IUI/C equals the calculated inches under inlet determined by dividing TTR by GPI

GPI equals the gallons per inch value assigned to the product approved by Dept. of  
Commerce

IUI/M equals the measured vertical distance in inches between the inlet invert and inside  
bottom of tank and must be equal to or greater to MSD

This approval supersedes the approval issued on 5/18/2004 under product file number 20040248.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under  
product file number 20040248.

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The department is in no way endorsing this product or any advertising, and is not responsible for any situation which  
may result from its use.

Sincerely,

Jean M. MacCubbin, CST  
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